

## AMENDMENTS

### In the claims:

Claims 1 to 10 (Canceled).

11. (Currently Amended) A method of inserting an exogenous nucleic acid into the genome of a non-human and non-Drosophilidae animal, said method comprising:

introducing into said animal a P-element derived vector ~~comprising said exogenous nucleic acid~~ under conditions sufficient for transposition to occur, wherein said vector comprises a pair of P-element transposase recognized insertion sequences flanking a single transcriptionally active gene that comprises said exogenous nucleic acid;

whereby to insert said exogenous nucleic acid is inserted into said genome.

12. (Currently Amended) A method of inserting an exogenous nucleic acid into the genome of a non-Drosophilidae animal cell in vitro, said method comprising:

introducing into said cell animal a P-element derived vector ~~according to Claim 4~~ under conditions sufficient for transposition to occur, wherein said vector comprises a pair of P-element transposase recognized insertion sequences flanking a single transcriptionally active gene that comprises said exogenous nucleic acid;

whereby to insert said exogenous nucleic acid is inserted into said genome.

13. (Currently Amended) The method according to ~~Claim 12~~ Claim 11, wherein said vector comprises a transposase domain.

14. **(Currently Amended)** The method according to ~~Claim 12~~ **Claim 11**, wherein said method further comprises introducing a second vector comprising a transposase domain into said animal.

15. **(Currently Amended)** The method according to ~~Claim 12~~ **Claim 11**, wherein said exogenous nucleic acid ranges in length from about 50 to 150,000 bp.

16. **(Currently Amended)** The method according to ~~Claim 12~~ **Claim 11**, wherein said ~~target~~ animal is a vertebrate.

17. **(Currently Amended)** The method according to ~~Claim 12~~ **Claim 16**, wherein said vertebrate animal is a mammalian animal.

18. **(Currently Amended)** The method according to ~~Claim 12~~ **Claim 17**, wherein said mammalian animal is a rodent.

Claims 19 to 26. **(Canceled)**

27. **(Currently Amended)** A **non-human and** non-Drosophilidae animal or cells derived from said animal that has **a pair of** P element transposase recognized insertion sequences integrated into the genome.

28. **(Original)** The animal or cells according to Claim 27, wherein said animal is a vertebrate or said cells are vertebrate cells.

29. **(Original)** The animal or cells according to Claim 28, wherein said animal is a mammal or said cells are mammalian cells.
30. **(Original)** The animal or cells according to Claim 29, wherein said animal is a rodent or said cells are rodent cells.
31. **(Currently Amended)** A non-human and non-Drosophilidae animal or cells derived from said animal that have a pair of P element transposase recognized 31bp insertion sequences integrated into the genome.
32. **(Original)** The animal or cells according to Claim 31, wherein said animal is a vertebrate or said cells are vertebrate cells.
33. **(Original)** The animal or cells according to Claim 32, wherein said animal is a mammal or said cells are mammalian cells.
34. **(Original)** The animal or cells according to Claim 33, wherein said animal is a rodent or said cells are rodent cells.
35. **(New)** The method according to Claim 12, wherein said vector comprises a transposase domain.
36. **(New)** The method according to Claim 12, wherein said method further comprises introducing a second vector comprising a transposase domain into said cell.

37.    **(New)**           The method according to Claim 12, wherein said exogenous nucleic acid ranges in length from about 50 to 150,000 bp.
38.    **(New)**           The method according to Claim 12, wherein said cell is a vertebrate cell.
39.    **(New)**           The method according to Claim 38, wherein said vertebrate cell is a mammalian cell.
40.    **(New)**           The method according to Claim 39, wherein said mammalian cell is a rodent cell.
41.    **(New)**           The method according to Claim 39, wherein said mammalian cell is a human cell.